

REMARKS:

Claims 1, 3, 4, 6-14, 16, 23, and 25-38 are presented for examination, with claims 1 and 25 having been amended hereby and claims 2, 5, 15, 17-22 and 24 having been cancelled, without prejudice or disclaimer.

To begin with, affirmation of the March 23, 2004 provisional election to prosecute claims 1, 3, 4, 6-14, 16, 23 and 25-38 is hereby made. In this regard, it is noted that claims 17-19 and 24 are cancelled hereby (without prejudice or disclaimer and with the right to prosecute such cancelled claims in any future application).

Further, notice is respectfully taken of the indication made by the Examiner at page 3 of the April 1, 2004 Office Action that the drawing corrections received on January 2, 2004 are approved.

Reconsideration is respectfully requested of the rejection of claims 1, 3, 4, 6-13, 16, 23, 25-35 and 37-38 under 35 U.S.C. 102(e) as being anticipated by Veldhuizen et al. (U.S. Patent No. 6,656,178).

It is respectfully submitted that applicants do not necessarily concur with the Examiner in the Examiner's analysis of the claims of the present application and the Veldhuizen et al. disclosure.

Nevertheless, in order to expedite prosecution of the application, claims 1 and 25 have been amended hereby to more particularly point out the feature of the invention directed to the sleeve being configured as an endless loop.

It is believed that this feature, as claimed, is neither shown nor suggested by Veldhuizen et al.

For example, see the figures of Veldhuizen et al., all of which relate to a prosthesis having a first state configured as a straight strip with two distinct extremities or a second state configured as a curved strip (again, with two distinct extremities).

In addition, it is respectfully submitted that Veldhuizen et al. actually teach away from the use of the claimed sleeve configured as an endless loop.

More particularly, Veldhuizen et al. indicates (at col. 6, lines 17-28) that:

According to the invention the device exhibits the characteristic that the strip is manufactured from a material that can undergo great deformations before permanent

deformation arises, and the strip is curved in a shape in which the extremities are situated apart from one another and the radius of the curved parts as well as the thickness of the strip are chosen in such a way that when the strip is bent out into an at least approximately straight strip scarcely any permanent deformation arises, in which case the strip which has been bent out into an approximately straight strip is capable of being introduced into an intervertebral space where the strip assumes its original curved shape. (emphasis added)

Further, Veldhuizen et al. indicates (at col. 12, lines 29-38) that:

This means that, after being deformed into an almost straight strip, such devices can be introduced, via a narrow slit made in the spine bounding the intervertebral space, into said intervertebral space where they then resume their original shape. In that position the end faces 2 and 3 then come into contact with the adjacent vertebrae, in which case the strip then performs a supporting and stabilising function for these vertebrae and thus takes over the load-bearing function of the intervertebral disc until bone fusion has come about. (emphasis added)

Thus, it is respectfully submitted that Veldhuizen et al. specifically require use of a straight strip (with two distinct extremities situated apart from one another) which can be inserted through a narrow slit and which can then assume a second shape within the body.

Of note, since the Veldhuizen et al. device operates as discussed above (i.e., having a first state configured as a straight strip with two distinct extremities and a second state configured as a curved strip (again, with two distinct extremities) applicants believe that any suggestion by the Examiner to combine an endless loop feature disclosed by any other reference with Veldhuizen et al. would be inapplicable.

Moreover, it is noted that claims 3, 4, 6-13, 16, and 23, which depend either directly or indirectly from independent claim 1, are submitted to be patentably distinct for at least the same reasons as the claim from which they depend.

In addition, it is noted that claims 26-35 and 37-38, which depend either directly or indirectly from independent claim 25, are submitted to be patentably distinct for at least the same reasons as the claim from which they depend.

Therefore, it is respectfully submitted that the rejection of claims 1, 3, 4, 6-13, 16, 23, 25-35 and 37-38 under 35 U.S.C. 102(e) as being anticipated by Veldhuizen et al. has been overcome.

Reconsideration is respectfully requested of the rejection of claims 1, 3, 4 and 6-12 under 35 U.S.C. 103(a) as being unpatentable over Biedermann et al. (U.S. Patent No. 5,609,637).

It is respectfully submitted that applicants do not necessarily concur with the Examiner in the Examiner's analysis of the claims of the present application and the Biedermann et al. disclosure.

Nevertheless, in order to expedite prosecution of the application, claim 1 has been amended hereby to more particularly point out the feature of the invention directed to the implant having corrugations extending radially outward around an axis extending from the first one of the vertebrae to the second one of the vertebrae.

It is believed that this feature, as claimed, is neither shown nor suggested by Biedermann et al.

For example, see the figures of Biedermann et al., all of which relate to a space keeper lacking corrugations extending radially outward around an axis extending from the first one of the vertebrae to the second one of the vertebrae (as depicted, for example, in Figs. 2b, 3b, 4, 13, 14 and 17 of the present application and as discussed, for example, at page 7, lines 22-28 of the present application).

Further, it is noted that this feature directed to the implant having corrugations extending radially outward around an axis extending from the first one of the vertebrae to the second one of the vertebrae was already recited in independent claim 25 before the filing of this Response and that the Examiner rejected independent claim 1 under Biedermann et al. but not independent claim 25.

Thus, it is respectfully submitted that the Examiner herself has actually implicitly acknowledged the lack of disclosure of Biedermann et al. of this corrugation feature (i.e., wherein the implant has corrugations extending radially outward around an axis extending from the first one of the vertebrae to the second one of the vertebrae).

Moreover, it is noted that claims 3, 4, and 6-12, which depend either directly or indirectly from independent claim 1, are submitted to be patentably distinct for at least the same reasons as the claim from which they depend.

Therefore, it is respectfully submitted that the rejection of claims 1, 3, 4 and 6-12 under 35 U.S.C. 103(a) as being unpatentable over Biedermann et al. has been overcome.

Reconsideration is respectfully requested of the rejection of claims 1, 3, 4, 6-11, 14, 16, 25-33 and 36-37 under 35 U.S.C. 103(a) as being anticipated by Schar et al. (U.S. Patent No. 6,176,881).

It is respectfully submitted that applicants do not necessarily concur with the Examiner in

the Examiner's analysis of the claims of the present application and the Schar et al. disclosure.

For example, reference is made to the feature of the present invention directed to the implant being provided with a first end and a second end, wherein the first end and the second end are open, wherein the first open end is adapted to contact the first one of the vertebrae, and wherein the second open end is adapted to contact the second one of the vertebrae (of note, this feature was already recited in independent claims 1 and 25 before the filing of this Response).

In marked contrast, the device of Schar et al. does not utilize such open first and second ends for contacting the vertebrae. More particularly, the telescopic vertebral prosthesis of Schar et al. utilizes an interior hollow body 1 and an exterior hollow cylinder 2, each of which is equipped with end plates 38, 39 (*see* Fig. 3 and Col. 3, lines 25-29).

In addition, in order to expedite prosecution of the application, independent claim 1 has been amended hereby to more particularly point out the feature of the invention directed to the implant having corrugations extending radially outward around an axis extending from the first one of the vertebrae to the second one of the vertebrae (this feature was already recited in independent claim 25 before the filing of this Response).

It is believed that this feature, as claimed, is neither shown nor suggested by Schar et al.

In this regard, it is noted that the Examiner appears to assert at page 6 of the April 1, 2004 Office Action that Schar et al. includes a corrugated feature at element 5 (e.g., in Fig. 1).

However, an analysis of the Schar et al. disclosure reveals that this element 5 is actually a linearly configured "toothed" portion of a catch mechanism for positioning interior hollow body 1 relative to exterior hollow cylinder 2.

Of note, this element 5 (i.e., the "toothed" portion of the catch mechanism) has higher and lower portions which vary linearly along the axis between the two vertebrae rather than radially around the axis as do the corrugations of the present invention.

Thus, it is respectfully submitted that independent claims 1 and 25 are patentably distinct over Schar et al.

In addition, it is noted that each of claims 3, 4, 6-11, 14, 16, 26-33, 36 and 37 depends either directly or indirectly from one of independent claims 1 or 25. Thus, each of these dependent claims is submitted to be patentably distinct for at least the same reasons as the claim from which it depends.

Therefore, it is respectfully submitted that the rejection of claims 1, 3, 4, 6-11, 14, 16, 25-33

and 36-37 under 35 U.S.C. 103(a) as being anticipated by Schar et al. has been overcome.

Additionally, it is noted that this Amendment is fully supported by the originally filed application and thus, no new matter has been added. For this reason, the Amendment should be entered.

More particularly, support for the amendment to claim 1 regarding the implant having corrugations extending radially outward around an axis extending from the first one of the vertebrae to the second one of the vertebrae is found at page 7, lines 22-28; in Figs. 2b, 3b, 4, 13, 14, 16 and 17; and throughout the specification.

Further, support for the amendment to claims 1 and 25 regarding the sleeve being configured as an endless loop is found at page 2, lines 23-24; in Figs. 1b, 2b, 3b, 4, 5b, 13, 14, 16 and 17; and throughout the specification.

Finally, it is respectfully submitted that the amendments made hereby require no further search by the Examiner since the shape and configuration of the implant had already been searched for and considered.

Accordingly, it is respectfully submitted that each rejection raised by the Examiner in the April 1, 2004 Office Action has been overcome and that the above-identified application is now in condition for allowance.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,
GREENBERG TRAURIG

By: 

Matthew B. Tropper
Registration No. 37,457

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Mailing Address:
GREENBERG TRAURIG
885 Third Avenue
New York, New York 10022
(212) 801-2100
Facsimile: (212) 688-2449